

Chapter

10

PLANS AND STAGING PROGRAM



PLANS & STAGING PROGRAM

*for the Airport Master Plan for
Whiteriver Airport*

10.0 GENERAL

In Chapters V and VI, "Facility Requirements" and "Development Alternatives" an evaluation was made of future options for airside and landside development. This effort resulted in the selection of an alternative for future airport improvements that could accommodate previously identified requirements needed at Whiteriver Airport. The purpose of this section is to describe the Airport Layout Plan Drawing Set that depicts the recommended development throughout the 20-year planning period.

The set of plans, referred to as the Airport Layout Plan, has been prepared to graphically depict the recommendations for airfield layout, disposition of obstructions, and future use of land in the vicinity of the airport. An 11" x 17" set of these drawings is included at the end of this Chapter and include:

- Cover Sheet
- Airport Layout Plan Drawing
- Building Area Plan Drawing
- Airport Airspace Drawing
- Inner Portion of the Approach Surface Drawing
- Land Use Drawing
- Exhibit "A" Property Map

10.1 DESIGN STANDARDS

Whiteriver Airport has been identified as a general aviation type facility that should ultimately be designed to accommodate the aircraft in Airport Reference Code (ARC) B-II which weigh less than 80,000 pounds dual wheel gear (DWG). Runway 1/19 will be designated as a B-II runway which is planned for use by aircraft with wingspans of less than 79 feet and approach speeds of less than 121 knots, although larger aircraft may use the airport if within their performance characteristics. Advisory Circulars

published by the FAA have been used to provide general guidance in the overall planning effort. These guidelines are designed to provide flexibility in application to ensure the safe, economic, and efficient use of the airport.

In order to meet the design standards for a B-II runway, the major projects required at the Whiteriver Airport include relocating the taxiway by 40 feet to the northwest and extending the Runway Safety Area at the approach end to Runway 1 by approximately 220 feet. These items, along with several other planned development projects, are depicted in the Airport Layout Plan Drawing Set.

10.2 AIRPORT LAYOUT PLAN DRAWING

The Airport Layout Plan (ALP) drawing graphically presents the existing and future airport layout and depicts the recommended improvements which will enable the airport to meet forecasted aviation demand. Detailed airport and runway data are provided on the ALP to facilitate the interpretation of the master plan recommendations.

The Airport Layout Plan shows a number of airport improvements associated with both the airfield and the landside area. The improvements for the landside area are illustrated in more detail and at a larger scale on the Building Area Plan drawing and are discussed later in this Chapter.

10.3 BUILDING AREA PLAN

The Building Area Plan represents a refinement of the selected development configuration and provides a plan for construction of facilities to meet forecasted aviation demand. The condition and location of the existing building area will allow expansion for future airport operations. Included in the building area plan are the relocation of the operations tower, slurry tanks, and slurry containment pad, recommended sites for apron expansion, and tiedown reconfiguration. The recommended building area development plan will accommodate future needs without disrupting current airport operations.

10.4 AIRPORT AIRSPACE DRAWING

The airport airspace drawing depicts a plan view of the airport FAR Part 77 surfaces and profiles of the Part 77 approach surfaces for the ultimate runway condition. The existing approaches to Runways 1 and 19 are visual with slopes of 20 to 1 for a distance of 5,000 feet. The planned approaches to Runways 1 and 19 are nonprecision instrument approaches utilizing the Global Positioning System (GPS) with slopes of 34 to 1 for a distance of 10,000 feet. The plans and profiles facilitate identification of obstructions, roadways, and buildings that lie within the confines of the Part 77 Airspace and the approach surfaces of each runway.

10.5 INNER PORTION OF THE APPROACH SURFACES DRAWING

This drawing provides a larger scale plan and profile of the inner portion of the approach surfaces, extending to where the approach slope reaches 100 feet in height, and the Runway Protection Zones for each existing and planned runway end. The plan depicts the physical features in the vicinity of each runway end, including topographic changes, roadways, and trees. The dimensions and slopes of approach surfaces are functions of the runway service category and the approach classification.

10.6 LAND USE PLAN

The Land Use Plan depicts the zoning regions within the airport vicinity and those land uses authorized by the White Mountain Apache Tribe. The Tribe, in coordination with the FAA, state, and local governments, should strive to coincide zoning regions with the compatible land uses outlined in Federal Aviation Regulation 150/5020-1, "Noise Control and Compatibility Planning for Airports".

10.7 EXHIBIT "A" PROPERTY MAP

The Exhibit "A" Property Map identifies the ownership or interests in each property tract located within the airport boundaries and those required for future aeronautical uses or development. When possible, the airport should pursue ownership of all properties within the airport boundaries, safety areas, and protection zones. When ownership is not possible, an avigation easement should be obtained.

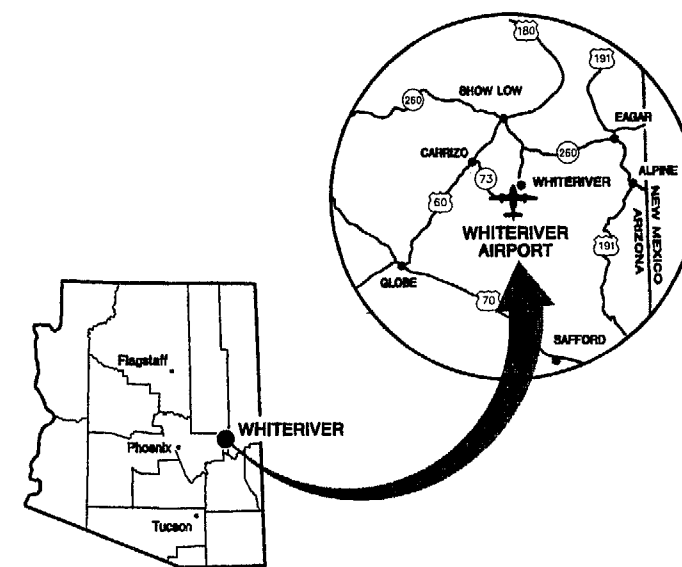
WHITERIVER AIRPORT MASTER PLAN

WHITERIVER, ARIZONA

AIRPORT LAYOUT PLANS

ARMSTRONG PROJECT NO. 965483

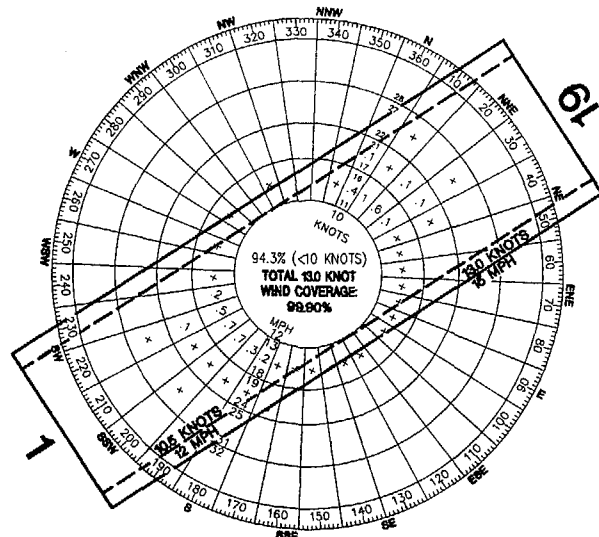
INDEX	
DESCRIPTION	SHEET
COVER SHEET	1
AIRPORT LAYOUT PLAN	2
PART "77" AIRSPACE	3
RUNWAY 1/19 INNER APPROACH PLAN & PROFILE	4
TERMINAL AREA PLAN	5
ON-AIRPORT LAND USE	6
OFF-AIRPORT LAND USE	7
EXHIBIT "A" PROPERTY MAP	8
AERIAL PHOTOGRAPH	9



**ARMSTRONG
CONSULTANTS, INC.**
AIRPORT ENGINEERING, PLANNING & ENVIRONMENTAL STUDIES



861 Rood Avenue
Grand Junction, CO 81501
ph 970-242-0101 fax 970-241-1789



ALL WEATHER WIND ROSE

SOURCE: U.S. FOREST SERVICE, REMOTE WEATHER OBSERVATION SYSTEM,
WHITERIVER, ARIZONA
JANUARY 1998 - DECEMBER 1998
10.5 KNOT/12 MPH CROSSWIND COVERAGE RUNWAYS 1/19 = 99.74%
13.0 KNOT/15 MPH CROSSWIND COVERAGE RUNWAYS 1/19 = 99.90%

AIRPORT FACILITIES LIST

(E)-EXISTING (U)-ULTIMATE

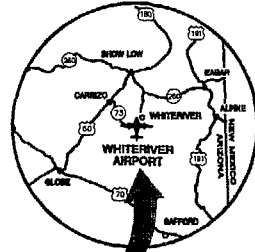
- 1 OPERATIONS TOWER
- 2 FIRE RETARDANT STORAGE TANK
- 3 ELECTRICAL VAULT
- 4 LIQUID PROPANE TANKS
- 5 HELIPAD
- 6 APRON FUELING STATION
- 7 APRON
- 8 AIRTANKER LOADING RAMP
- 9 AUTO PARKING
- 10 THRESHOLD LIGHTS
- 11 REIL
- 12 PAPI
- 13 AWOS
- 14 SEGMENTED CIRCLE / WIND CONE
- 15 SUPPLEMENTAL WIND CONE
- 16 RUNWAY END LIGHTS

300 0 300 600

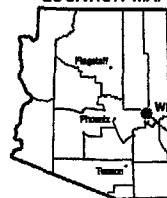
SCALE IN FEET

LEGEND					
EXISTING	ULTIMATE	DESCRIPTION		EXISTING	ULTIMATE
		DEVELOPMENT			
		STRUCTURE/FACILITIES			
		EARTHWORK			
		AIRPORT BOUNDARY LINE			
		RUNWAY PROTECTION ZONE (RPZ)			
		RUNWAY SAFETY AREA (RSA)			
		RUNWAY OBSTACLE FREE ZONE (OFZ)			
		RUNWAY OBJECT FREE AREA (ROFA)			
		TAXIWAY SAFETY AREA (TSA)			
		TAXIWAY OBJECT FREE AREA (TOFA)			
		BUILDING RESTRICTION LINE (BRL)			
		CONTOURS			
		SECURITY FENCING			
		HELICOPTER PARKING PAD			
		IMPROVED ROAD			
		UNIMPROVED ROAD			
		THRESHOLD/RUNWAY END LIGHT			
		REIL			
		VASI / PAPI			
		WIND CONE			
		AIRPORT REFERENCE POINT (ARP)			
		AWOS			
		AIRCRAFT TIEDOWN			
		SECTION CORNER			
		STATE GRID COORDINATE (NAD '83)			
		CONTROL POINT			
		RW/TW EDGE LIGHTS (NOT TO SCALE)			

VICINITY MAP



LOCATION MAP



MAGNETIC DECLINATION: 11° 48' 48"
SOURCE: INTERPEX/GEOMAGIX, 12/18/1997
ANNUAL RATE OF CHANGE: - 52"



APPROACH SLOPE
20:1 (E), 34:1 (U)

EXISTING & ULTIMATE
RUNWAY PROTECTION ZONE
500' x 700' x 1000'
Cat A & B Vis Min >= 1 Mile

STORAGE BUILDINGS

BLAST PAD

TAXIWAY 1

EXISTING & ULTIMATE

RUNWAY 19 END

STA 62+88 ELEV 5161.3'

LAT 33° 48' 04.8"

LONG 109° 58' 52.8"

RUNWAY HIGH POINT

125' DISPLACED THRESHOLD (E)

LAT 33° 49' 03.8"

LONG 109° 58' 53.3"

ELEV = 5160.1'

HELIPORT ACCESS ROAD (U)

(GRAVEL)

FORT APACHE INDIAN RESERVATION LAND

RESERVATION LAND

FAA APPROVAL

STAMP

APPROVED BY:

RONNIE LUPE
CHAIRMAN, WHITE MOUNTAIN APACHE TRIBE

DATE

RUNWAY END COORDINATES (NAD '83)

RUNWAY	LATITUDE	EXISTING	ULTIMATE
1	33° 48' 11.0"	109° 58' 29.8"	109° 58' 29.8"
19	33° 49' 04.9"	109° 58' 52.8"	109° 58' 52.8"

NOTE: ALL AIRPORT PROPERTY, INCLUDING RPZs, OWNED AND CONTROLLED BY SPONSOR. NO THRESHOLD SITING SURFACE PENETRATIONS. NO EXISTING OR PLANNED FAA APPROVED MODIFICATIONS TO STANDARDS. EXISTING TAXIWAY PAVEMENTS TO BE REMOVED.

AIRPORT DATA

ITEM	EXISTING	ULTIMATE
AIRPORT ELEVATION above MSL	5161.3'	5161.3'
AIRPORT REFERENCE POINT (NAD '83)		
LATITUDE NORTH	33° 48' 37.8"	33° 48' 37.8"
LONGITUDE WEST	109° 58' 11.2"	109° 58' 11.2"
AIRPORT & TERMINAL NAVS	NONE	GPS/PAPI/REILs
MEAN MAX TEMP.	80.5° F July	80.5° F July
AIRPORT REFERENCE CODE	B-II	B-II
DESIGN AIRCRAFT	BAE JETSTREAM 31	BAE JETSTREAM 31
WINGSPAN (FT)	109	109
APPROACH SPEED (KNOTS)	520	520
WEIGHT (LBS)	14,560	(DC-6: 104,000)
GPS APPROACH	NO	YES
TAXIWAY LIGHTING	EXITS ONLY	MITL
NPIAS ROLE	GA	GA

NON-STANDARD CONDITIONS

ITEM	RUNWAY DESIGN CATEGORY	STANDARD	NON-STANDARD CONDITION	PROPOSED ACTION
RW-TW SEPARATION	B-II	240'	RW-TW SEPARATION IS 200'	RELOCATE TAXIWAY
RW 1 SAFETY AREA	B-II	300' BEYOND RW END	ONLY 80' AVAILABLE BEYOND APPROACH END OF RW 1	CONSTRUCT RUNWAY SAFETY AREA EXTENSION
TAXIWAY OBJECT FREE AREA	B-II	131'	TOFA PENETRATED BY FENCE, SLURRY TANKS, OPS TOWER, AND ELECTRICAL VAULT	REMOVE/RELOCATE OBSTRUCTIONS
RUNWAY OBJECT FREE ZONE	B-II	400' WIDE	PENETRATED BY LOCATION AND ELEVATION OF EXISTING TAXIWAY	RELOCATE TAXIWAY

RUNWAY DATA

ITEM	EXISTING	ULTIMATE
APPROACH VISIBILITY MINIMUMS	VISUAL	1 MILE
FAR PART 77 APPROACH SLOPE	20:1	34:1
FAR PART 77 CATEGORY	RW 1 VISUAL UTILITY RW 19 VISUAL UTILITY	NONPRECISION NONPRECISION
INSTRUMENT RUNWAY	NONE	GPS NONPRECISION
RUNWAY LENGTH	6288'	6288'
RUNWAY WIDTH	75'	75'
RUNWAY PAVEMENT	ASPHALT	ASPHALT
RW PAVEMENT STRENGTH (LBS)	16,000 SWG	50,000 DWG
TAXIWAY PAVEMENT	ASPHALT	ASPHALT
TW PAVEMENT STRENGTH (LBS)	16,000 SWG	50,000 DWG
RUNWAY LIGHTING	MIRL	MIRL
TAXIWAY LIGHTING	EXITS ONLY	MITL
RUNWAY MARKING	VISUAL	NONPRECISION
% EFFECTIVE GRADIENT	-1.28	-1.28
MAXIMUM GRADE	-2.23	-2.23
LINE OF SIGHT REQUIREMENTS	YES	YES
% WIND COVERAGE	10.5 KNOT/12 MPH 13.0 KNOT/15 MPH	98.74% 99.90%
VISUAL AIDS	NONE	PAPIs, REILs
NAVIGATIONAL AIDS	NONE	GPS
AIRPORT REFERENCE CODE	B-II	B-II
LENGTH OF HAUL OF AIRCRAFT > 60,000 LBS	N/A	80 MILES
RUNWAY SAFETY AREA (RSA)	LENGTH 6543' WIDTH 150'	LENGTH 6783' WIDTH 150'
LENGTH BEYOND RWY END	300' (80' EXISTING RW 9)	300'
RUNWAY OBJECT FREE AREA (ROFA)	LENGTH 6888' WIDTH 500'	LENGTH 6888' WIDTH 500'
LENGTH BEYOND RWY END	300'	300'
RUNWAY OBSTACLE FREE ZONE (OFZ)	LENGTH 6888' WIDTH 400'	LENGTH 6888' WIDTH 400'
LENGTH BEYOND RWY END	200'	200'
RUNWAY ELEVATIONS above MSL	RW 1 5080.9' RW 19 5101.0'	RW 1 5080.9' RW 19 5101.0'
RUNWAY END TOUCHDOWN ZONE (TDZ)	5161.3' 5080.9'	5161.3' 5080.9'
DECLARED DISTANCES	TORA 6163' TODA 6288' ASDA 6163' LDA 6163'	TORA 6288' TODA 6288' ASDA 6288' LDA 6163'

ARMSTRONG CONSULTANTS, INC.
AIRPORT ENGINEERING, PLANNING & ENVIRONMENTAL STUDIES
981 Road Avenue
Grand Junction, CO 81501
ph 970-242-0101 fax 970-241-1769

WHITERIVER AIRPORT
WHITERIVER, ARIZONA
AIRPORT LAYOUT PLANS
Airport Sponsor:
WHITE MTN APACHE TRIBE

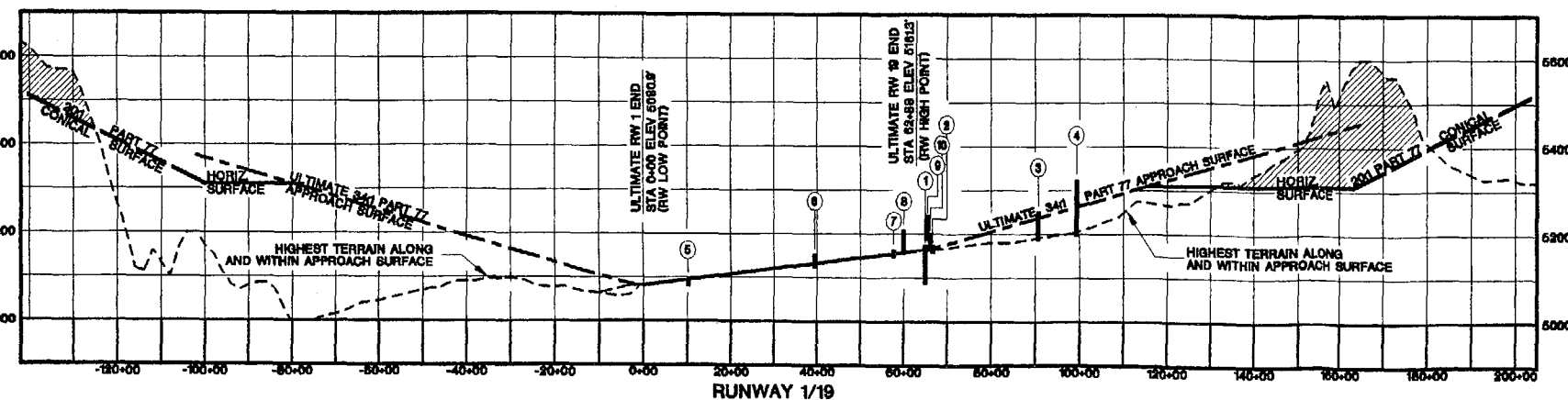
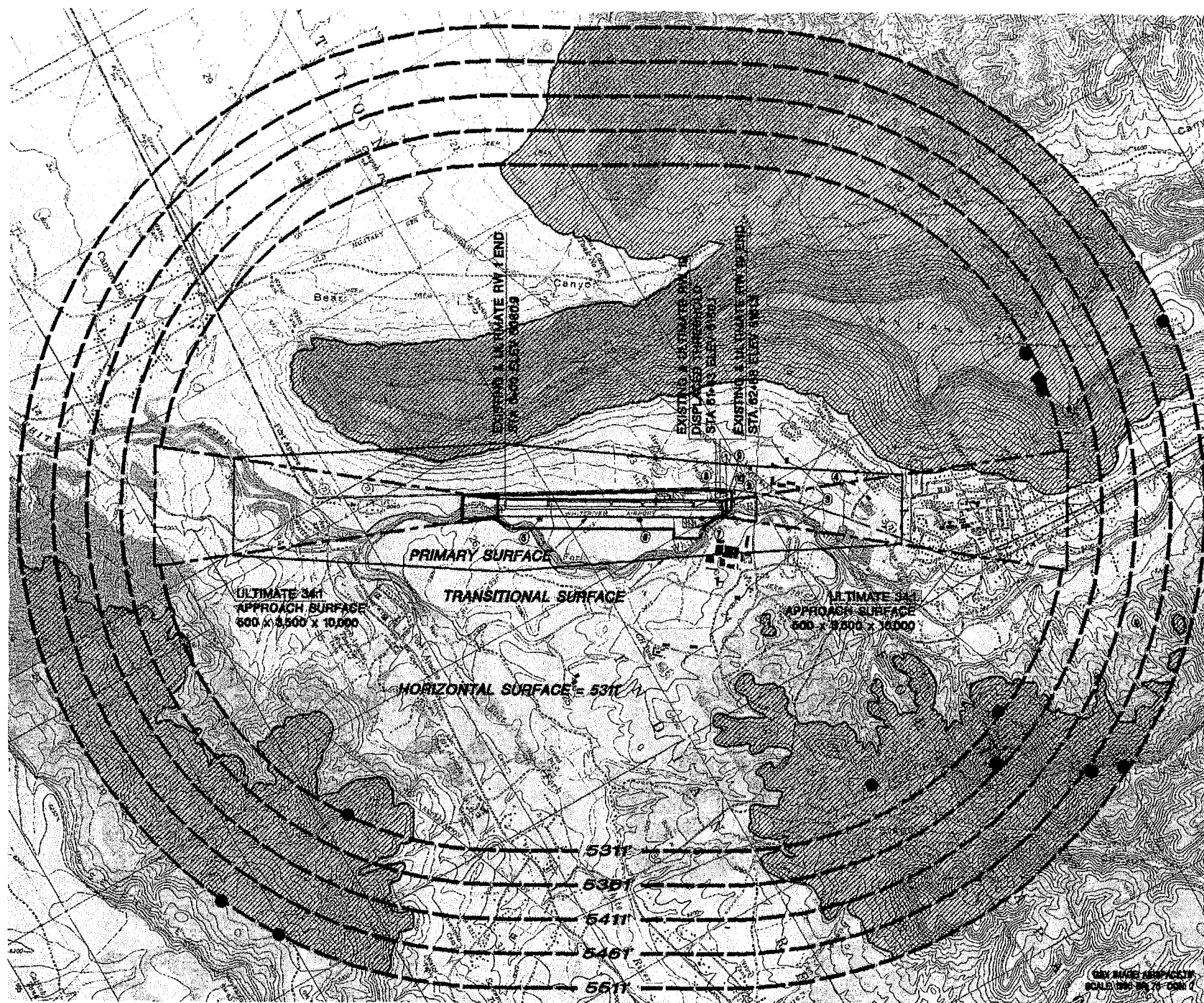
No.	Revision	Date	By

Project No: 965483
Date: 03/19/98
File Name: ALP

Drawn: KMS
Checked: DAC
Approved: EAA

AIRPORT LAYOUT PLAN

Sheet 2 of 9



OBSTRUCTIONS				
SURFACE	OBJECT	TOP ELEVATION	AMOUNT OF PENETRATION	PROPOSED ACTION
APPROACH (RW 19)	1) HELIPAD SERVICE ROAD	5170'	8'	RESTRICTED USE
	2) STORAGE BUILDINGS	5170'	10'	OBSTRUCTION LIGHT OR REMOVE
	3) POWER LINE	5247'	9'	OBSTRUCTION LIGHT EACH POLE ALONG POWER LINE
	4) SPORTS FIELD LIGHTS	5320'	58'	NONE (OBSTRUCTION LIGHTED)
	NORTH/NORTHWEST TERRAIN	VARIES UP TO 5500' MSL	VARIES UP TO 144'	NONE
TRANSITIONAL	5) POWER LINE	5257'	2'	OBSTRUCTION LIGHT EACH POLE ALONG POWER LINE
	6) SUPPLEMENTAL WINDCONE	5092'	10'	OBSTRUCTION LIGHT
	7) SEGMENTED CIRCLE/WINDCONE	5149'	24'	OBSTRUCTION LIGHT
	8) SUPPLEMENTAL WINDCONE	5150'	8'	OBSTRUCTION LIGHT
	9) OPERATIONS TOWER/ANTENNA	5204.9'	25/44'	OBSTRUCTION LIGHT
	10) RADIO SHOP/ANTENNA	5190/5239'	28/89'	OBSTRUCTION LIGHT
HORIZONTAL	11) AUTO SHOP	5197'	27'	OBSTRUCTION LIGHT
	NORTH/NORTHWEST TERRAIN	VARIES UP TO 5190'	VARIES UP TO 789'	NONE
	NORTHEAST TERRAIN	VARIES UP TO 5580'	VARIES UP TO 349'	NONE
	SOUTH/SOUTHEAST TERRAIN	VARIES UP TO 5580'	VARIES UP TO 249'	NONE
CONICAL	12) MICROWAVE REFLECTOR	5140'	809'	OBSTRUCTION LIGHT
	NORTH/NORTHWEST TERRAIN	VARIES UP TO 5340'	VARIES UP TO 809'	NONE
	NORTHEAST TERRAIN	VARIES UP TO 5080'	VARIES UP TO 695'	NONE
	SOUTH/SOUTHEAST TERRAIN	VARIES UP TO 5880'	VARIES UP TO 359'	NONE

● DESIGNATES TOP ELEVATION IN GIVEN AREA OF TERRAIN PENETRATION

◆ DESIGNATES POINT OF HIGHEST TERRAIN PENETRATION, IF DIFFERENT FROM TOP ELEVATION

MAGNETIC DECLINATION: 11° 48' 48"
SOURCE: INTERPEX/GEOMAX, 12/16/1997
ANNUAL RATE OF CHANGE: - 5"



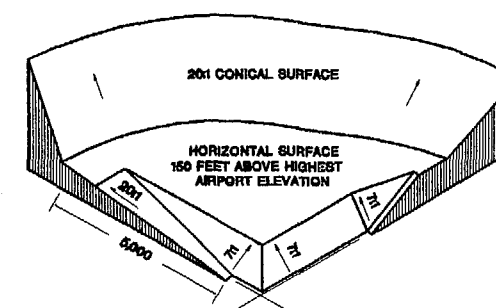
1 INCH = 2000 FEET

PROFILE: HORIZONTAL SCALE 1" = 2000'
VERTICAL SCALE 1" = 200'



LEGEND		
[Solid line]	EXISTING DEVELOPMENT	
[Dashed line]	FUTURE DEVELOPMENT	
[Hatched area]	TERRAIN PENETRATIONS	
[Dotted line]	AIRPORT PROPERTY LINE	
[Long dashed line]	RUNWAY PROTECTION ZONE	
[Short dashed line]	ULTIMATE TRANSITIONAL SURFACE	
[Dash-dot line]	CONICAL SURFACE	
[Long dash-short dash line]	ULTIMATE APPROACH SURFACE (PLAN & PROFILE)	
[Thick solid line]	COMPOSITE SURFACE ALONG HIGHEST TERRAIN (PROFILE)	

TYPICAL ISOMETRIC VIEW OF FAR PART 77 SURFACES



ARMSTRONG CONSULTANTS, INC.
AIRPORT ENGINEERING, PLANNING & ENVIRONMENTAL STUDIES
861 Flood Avenue
Grand Junction, CO 81501
ph 970-242-0161 fax 970-241-1769

WHITERIVER AIRPORT
WHITERIVER, ARIZONA
AIRPORT LAYOUT PLANS
Airport Sponsor:
WHITE MTN APACHE TRIBE

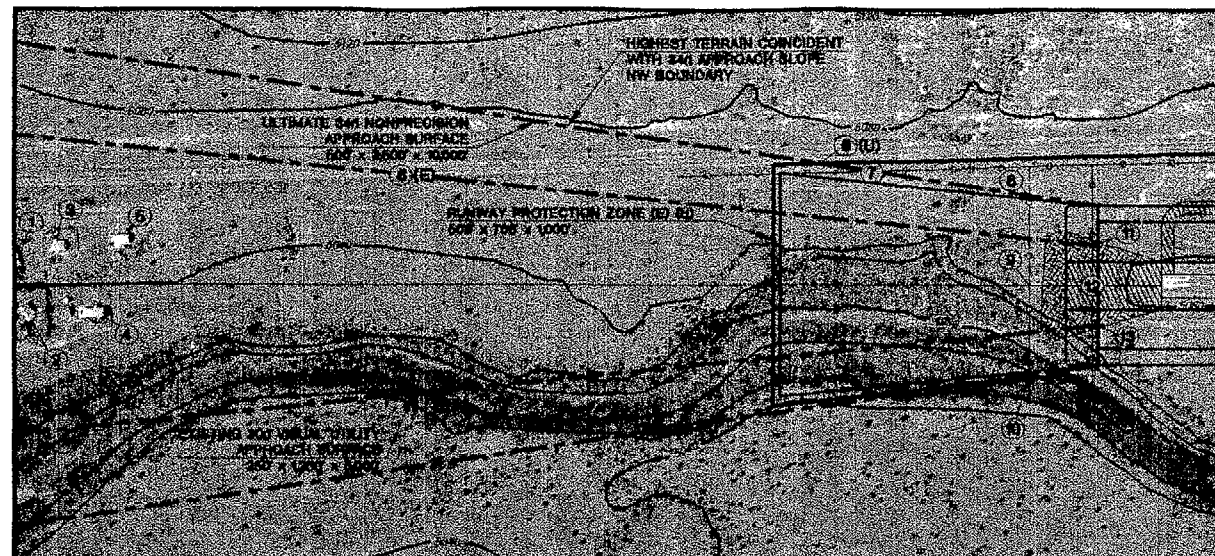
No.	Revisions	Date	By

Project No: 965483
Date: 03/19/98
File Name: AIRSPACE

Drawn: MDM
Checked: DAC
Approved: EAA

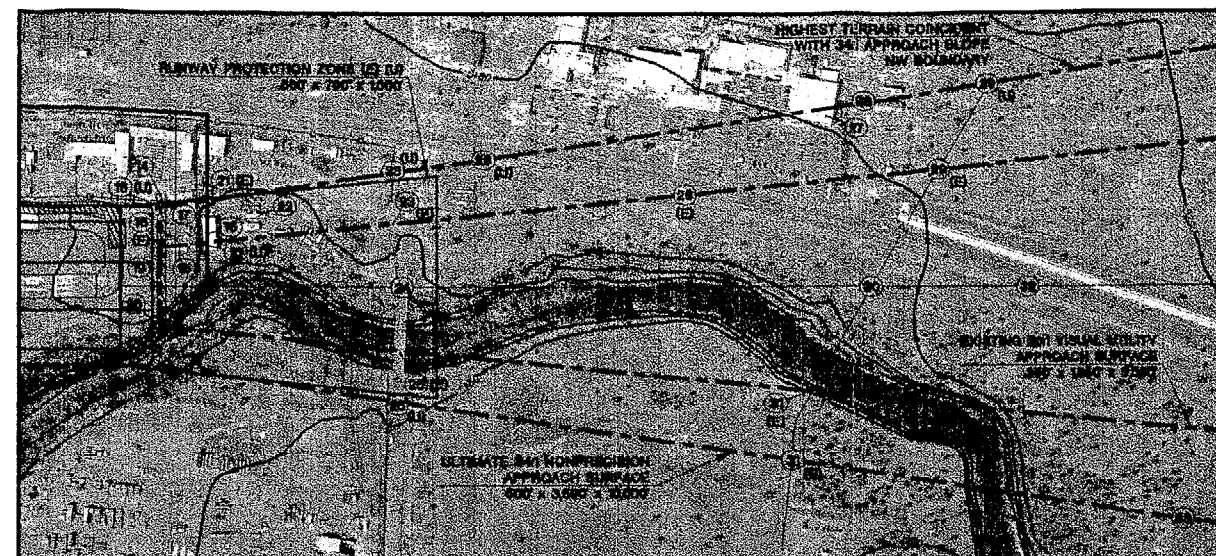
PART "77"
AIRSPACE
DRAWING

Sheet 3 of 9



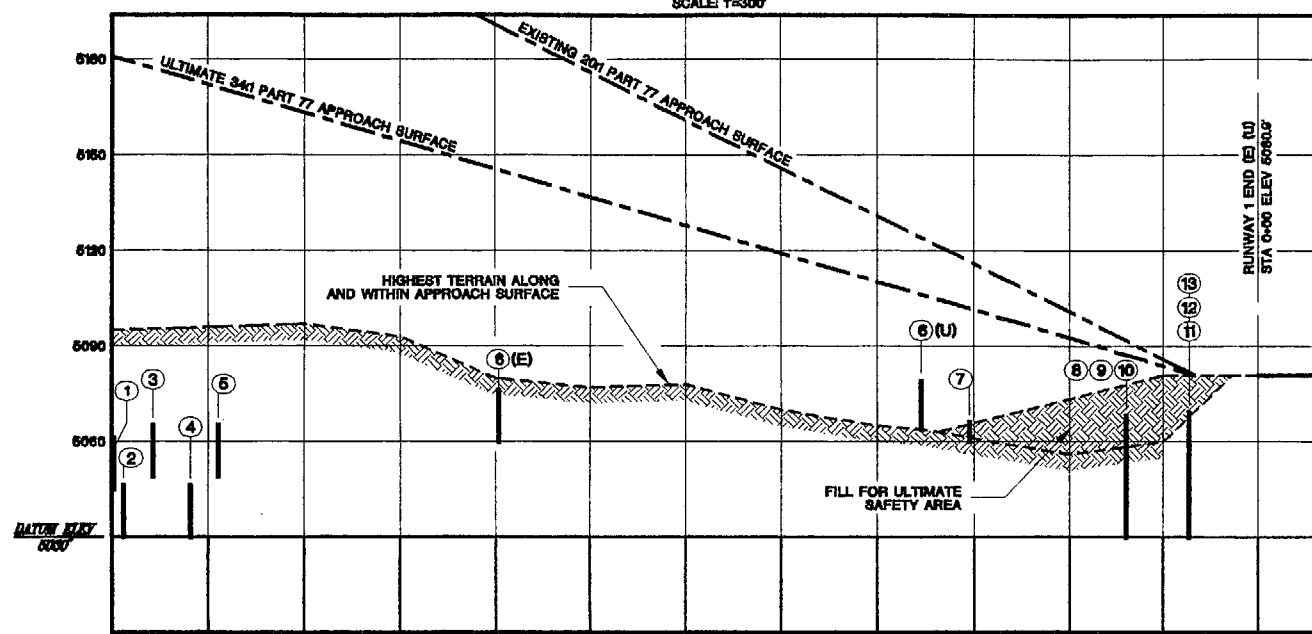
PLAN RUNWAY 1 (E) (U)

GSX IMAGE APPR_119
SCALE 670 BR 80 CON: 7



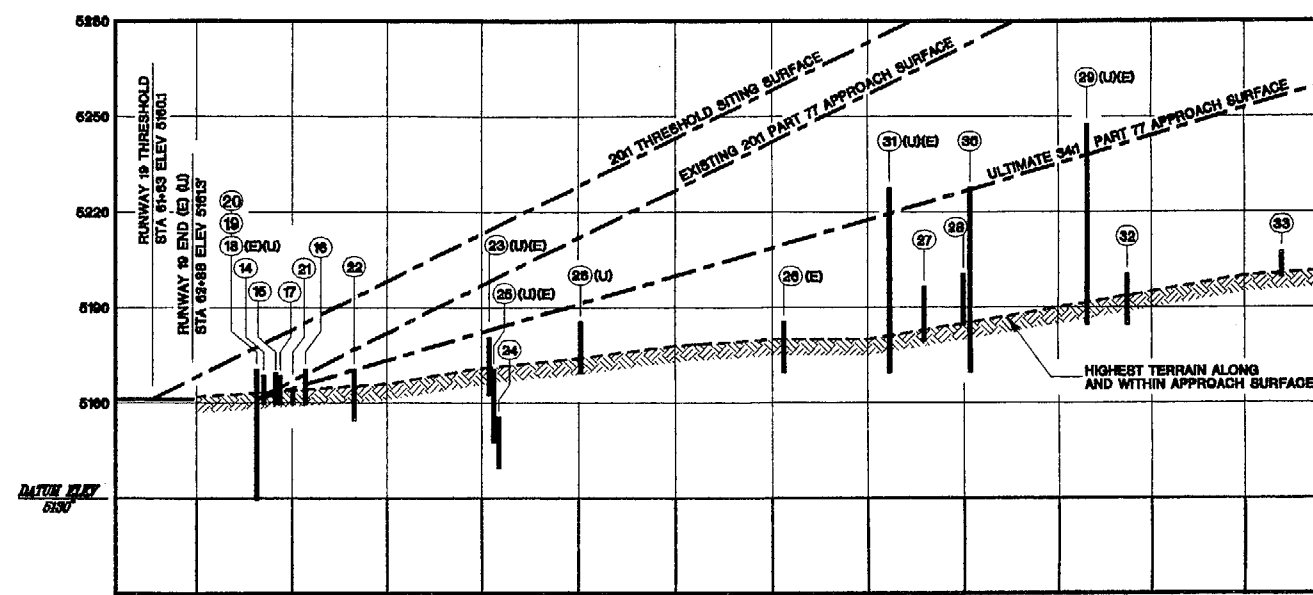
PLAN RUNWAY 19 (E) (U)

GSX IMAGE APPR_119
SCALE 655 BR 80 CON: 7



PROFILE RUNWAY 1 (E) (U)

HORIZ. SCALE 1"=300'
VERT. SCALE 1"=30'

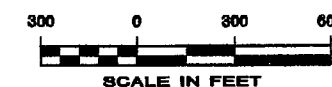


PROFILE RUNWAY 19 (E) (U)

HORIZ. SCALE 1"=300'
VERT. SCALE 1"=30'

OBJECTS WITHIN RWY 1/19 (E) (U) INNER APPROACH SURFACE

NO.	OBJECT	OBSTACLE HEIGHT	TOP ELEVATION	PART 77 APPROACH SURFACE PENETRATION		PROPOSED ACTION	NO.	OBJECT	OBSTACLE HEIGHT	TOP ELEVATION	PART 77 APPROACH SURFACE PENETRATION		PROPOSED ACTION
				201 EXISTING (E)	341 ULTIMATE (U)						201 EXISTING (E)	341 ULTIMATE (U)	
1	BUILDING	10'	5081	-189	-119	NONE	18	HELIPAD SERVICE ROAD	17	5170	-8	-8	RESTRICTED USE OF ROAD
2	BUILDING	16'	5048	-203	-133	NONE	19	HELIPAD SERVICE ROAD	17	5170	-8	-8	
3	BUILDING	16'	5065	-180	-112	NONE	20	HELIPAD SERVICE ROAD	17	5190	-81	-61	
4	BUILDING	16'	5048	-183	-127	NONE	21	FENCE (E)	4'	5184	-3	-07	NONE
5	BUILDING	16'	5085	-160	-108	NONE	22	ROAD DEPARTMENT VEHICLE PARKING	15'	5170	-6	-3	NONE
6	HIGHWAY 73	15'	5079	-115	-27	NONE	23	ROAD & FENCE	15'	5180	-20	-2	NONE
7	FENCE (E)	4'	5064	N/A	-35	NONE	24	ROAD	15'	5155	-44	-28	NONE
8	FENCE (U)	5'	5088	N/A	-19	RELOCATE	25	ROAD	15'	5170	-35	-13	NONE
9	FENCE (U)	5'	5088	N/A	-29		26	HIGHWAY 73	15'	5185	-58	-5	NONE
10	FENCE (U)	5'	4978	N/A	-97		27	BUILDING	16'	5196	N/A	-28	NONE
11	FENCE (E)	4'	5089	-12	N/A		28	ROAD	15'	5200	N/A	-26	NONE
12	FENCE (E)	4'	5089	-12	N/A	OBSTRUCTION LIGHT OR REMOVE	29	POWER LINE	57'	5247	-44	-9	OBSTRUCTION LIGHT EACH POLE ALONG POWER LINE
13	FENCE (E)	4'	5004	-77	N/A		30	POWER LINE	57'	5227	-46	0	
14	PAINT STORAGE BUILDING	8'	5168	-6	-6		31	POWER LINE	57'	5227	-33	-7	NONE
15	VACANT TRAILER	9'	5169	-5	-5		32	HIGHWAY 73	15'	5200	-58	-41	
16	STORAGE BUILDING	10'	5170	-1	-4		33	SEWAGE DISPOSAL POND	7'	5207	N/A	-49	
17	STORAGE SHEDS	8'	5168	-3	-5								



NOTES

THE WHITE RIVER DOES NOT SERVE AS A TRAFFIC WATERWAY.
NO THRESHOLD SITING SURFACE PENETRATIONS.

LEGEND

EXISTING	ULTIMATE	DESCRIPTION
		DEVELOPMENT
		FENCING
		CONTOURS
		PART 77 APPROACH SURFACE (E) (U)
		EXISTING AIRPORT PROPERTY LINE
		RUNWAY SAFETY AREA (RSA)
		RUNWAY OBSTACLE FREE ZONE (OFZ)
		RUNWAY OBJECT FREE AREA (ROFA)
		UTILITIES (E = ELECTRIC)



MAGNETIC DECLINATION 11° 49' 45"
SOURCE: INTERPEX/GEOMAGIX, 12/18/1987
ANNUAL RATE OF CHANGE - 52"

ARMSTRONG CONSULTANTS, INC.
AIRPORT ENGINEERING, PLANNING & ENVIRONMENTAL STUDIES
861 Road Avenue
Grand Junction, CO 81501
ph 970-242-0101 fax 970-241-1769

WHITERIVER AIRPORT
WHITERIVER, ARIZONA
AIRPORT LAYOUT PLANS
Airport Sponsor:
WHITE MTN APACHE TRIBE

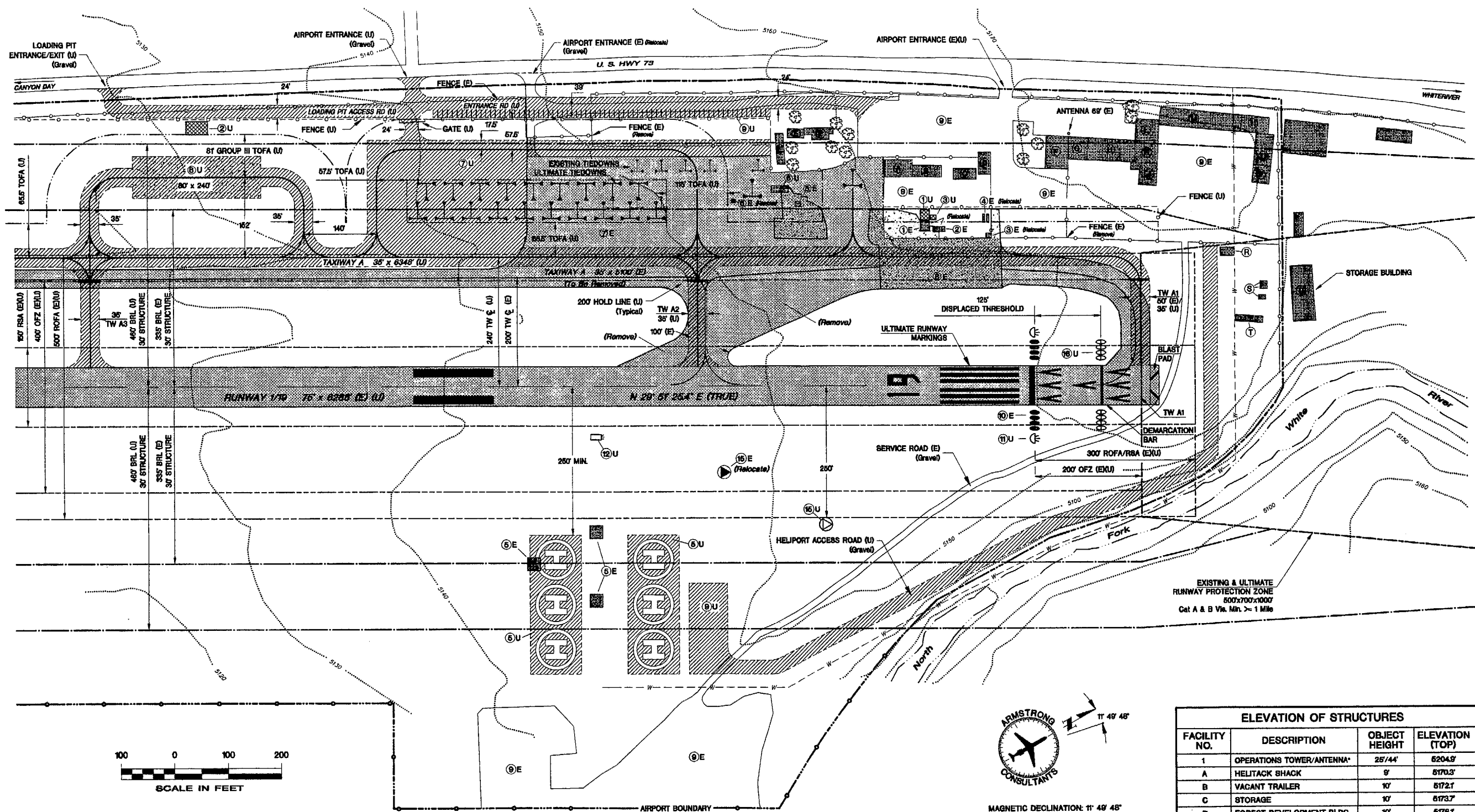
No.	Revision	Date	By

Project No: 965483
Date: 03/19/98
File Name: approach

Drawn: MDM
Checked: DAC
Approved: EAA

INNER APPROACH RWY 1/19

Sheet 4 of 9



LEGEND					
EXISTING	ULTIMATE	DESCRIPTION	EXISTING	ULTIMATE	DESCRIPTION
[Pattern]	[Pattern]	DEVELOPMENT (ASPHALT)	[Pattern]	[Pattern]	FENCING
[Pattern]	[Pattern]	DEVELOPMENT (CONCRETE)	[Pattern]	[Pattern]	ROAD
[Pattern]	[Pattern]	STRUCTURE/FACILITIES	[Pattern]	[Pattern]	ULTIMATE WATER LINE
[Pattern]	[Pattern]	AIRPORT BOUNDARY LINE	[Pattern]	[Pattern]	THRESHOLD LIGHT
[Pattern]	[Pattern]	RUNWAY PROTECTION ZONE (RPZ)	[Pattern]	[Pattern]	RUNWAY END LIGHT
[Pattern]	[Pattern]	RUNWAY SAFETY AREA (RSA)	[Pattern]	[Pattern]	REIL
[Pattern]	[Pattern]	RUNWAY OBSTACLE FREE ZONE (OFZ)	[Pattern]	[Pattern]	VASI / PAPI
[Pattern]	[Pattern]	RUNWAY OBJECT FREE AREA (ROFA)	[Pattern]	[Pattern]	WIND CONE
[Pattern]	[Pattern]	TAXIWAY SAFETY AREA (TSA)	[Pattern]	[Pattern]	AIRCRAFT TIEDOWN
[Pattern]	[Pattern]	TAXIWAY OBJECT FREE AREA (TOFA)	[Pattern]	[Pattern]	TREE/SHRUB
[Pattern]	[Pattern]	BUILDING RESTRICTION LINE (BRL)	[Pattern]	[Pattern]	HELICOPTER PARKING PAD
[Pattern]	[Pattern]	CONTOURS	[Pattern]	[Pattern]	

SEPARATION STANDARDS		
ITEM	EXISTING STANDARD	ULTIMATE STANDARD
RUNWAY OBJECT FREE AREA	500' WIDE 300' BEYOND ENDS	500' WIDE 300' BEYOND ENDS
RUNWAY SAFETY AREA	150' WIDE 300' BEYOND ENDS	150' WIDE 300' BEYOND ENDS
TAXIWAY OBJECT FREE AREA	131' WIDE	131' WIDE
TAXILANE OBJECT FREE AREA	115' WIDE	115' WIDE
TAXIWAY SAFETY AREA	75' WIDE	75' WIDE
BUILDING RESTRICTION LINE (30' BUILDING)	335' FROM RW 01/19 CL	480' FROM RW 01/19 CL

LATERAL SEPARATION STANDARDS CURRENTLY NOT MET.
PROPOSED DEVELOPMENT WILL CORRECT DEFICIENCIES.



MAGNETIC DECLINATION: 11° 48' 48"
SOURCE: INTERPEX/GEOMAGIX, 12/18/1997
ANNUAL RATE OF CHANGE: - 6"

AIRPORT FACILITIES LIST

- (E)-EXISTING (U)-ULTIMATE
- 1 OPERATIONS TOWER (No ATC Service)
 - 2 FIRE RETARDANT STORAGE TANK
 - 3 ELECTRICAL VAULT
 - 4 LIQUID PROPANE TANKS
 - 5 HELIPAD
 - 6 APRON FUELING STATION
 - 7 APRON
 - 8 AIRTANKER LOADING RAMP
 - 9 VEHICLE PARKING
 - 10 THRESHOLD LIGHTS
 - 11 REIL
 - 12 PAPI
 - 13 AWOS
 - 14 SEGMENTED CIRCLE / WIND CONE
 - 15 SUPPLEMENTAL WIND CONE
 - 16 RUNWAY END LIGHTS

ELEVATION OF STRUCTURES			
FACILITY NO.	DESCRIPTION	OBJECT HEIGHT	ELEVATION (TOP)
1	OPERATIONS TOWER/ANTENNA*	25'/44'	5204.9'
A	HELITACK SHACK	9'	5170.3'
B	VACANT TRAILER	10'	5172.1'
C	STORAGE	10'	5173.7'
D	FOREST DEVELOPMENT BLDG	10'	5176.1'
E	CONTRACT TRAILER	9'	5187.8'
F	DISPATCH OFFICE	15'	5185'
G	WAREHOUSE	20'	5190'
H	RADIO SHOP/ANTENNA*	20'/65'	5190.5/235'
J	AUTO SHOP*	21'	5197'
K	WAREHOUSE	25'	5195'
L	TRAINING ROOM	25'	5195'
M	ENGINE SHOP/OFFICE	20'	5190'
N	WAREHOUSE/SUPPLIES	20'	5190'
O	MAP ROOM	20'	5190'
P	SAW SHOP	20'	5190'
R	PAINT STORAGE*	5'	5185'
S	STORAGE SHEDS*	5'	5185'
T	VACANT TRAILER*	9'	5199'
U	STORAGE BUILDING*	10'	5170'

* OBSTRUCTION LIGHT NEEDED

ARMSTRONG CONSULTANTS, INC.
AIRPORT ENGINEERING, PLANNING & ENVIRONMENTAL STUDIES
861 Flood Avenue
Grand Junction, CO 81501
ph 970-242-0001 fax 970-241-7688

WHITERIVER AIRPORT
WHITERIVER, ARIZONA
AIRPORT LAYOUT PLANS
Airport Sponsor:
WHITE MTN APACHE TRIBE

No.	Revision	Date	By

Project No: 965483
Date: 03/19/98
File Name: TAD

Drawn: KMS
Checked: DAC
Approved: EAA

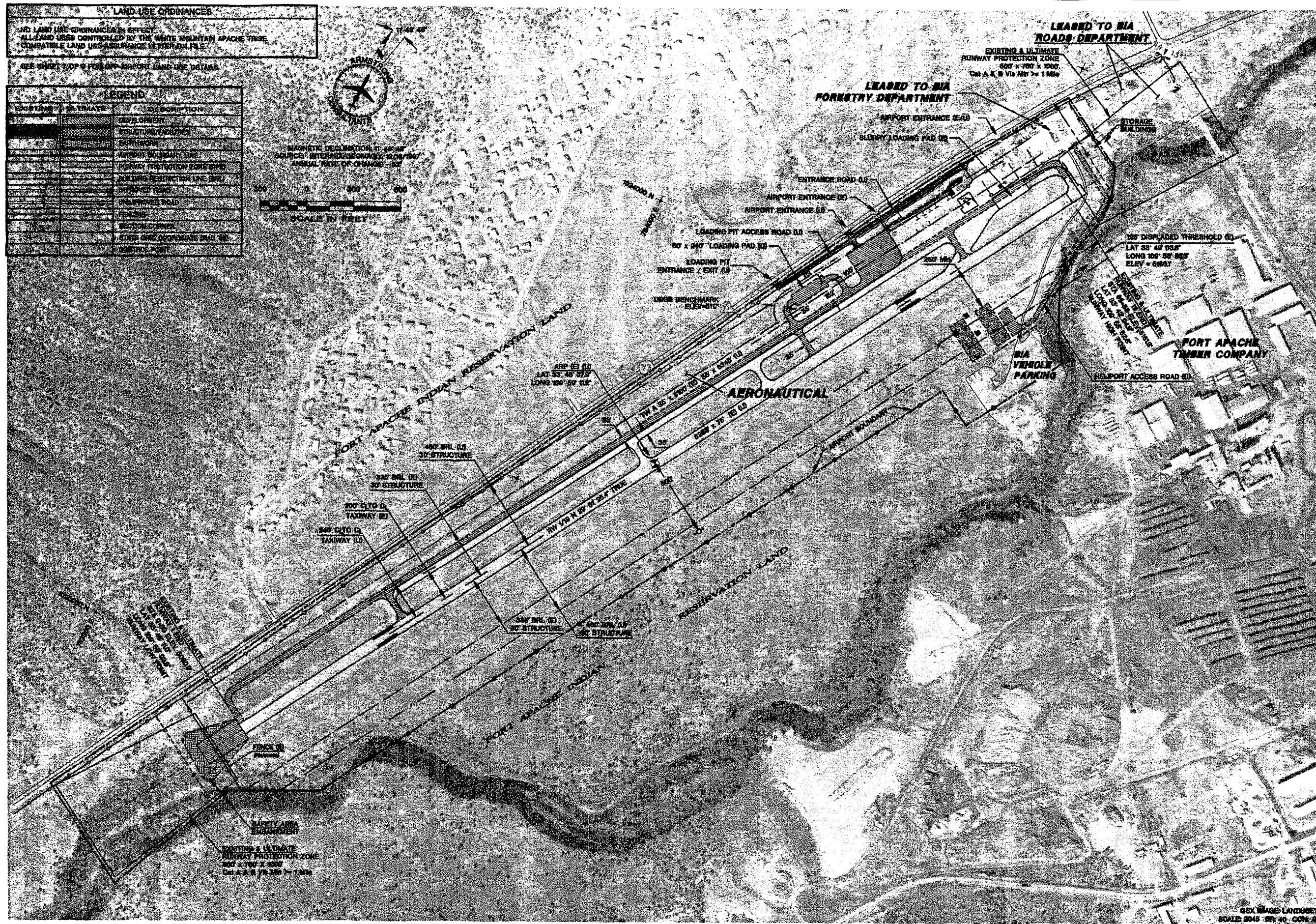
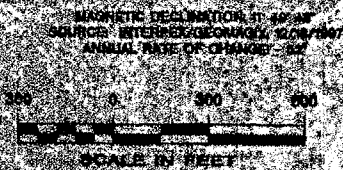
TERMINAL AREA DRAWING

Sheet: 5 of 9

LAND USE ORDINANCES
 NO LAND USE ORDINANCES IN EFFECT
 ALL LAND USES CONTROLLED BY THE WHITE MOUNTAIN APACHE TRIBE
 COMPATIBLE LAND USE ASSURANCE LETTER ON FILE

SEE SHEET 1001 FOR OFF-AIRPORT LAND USE DETAILS

LEGEND	
SYMBOL	DESCRIPTION
[Symbol]	DEVELOPMENT
[Symbol]	STRUCTURE/STREET
[Symbol]	RIGHT-OF-WAY
[Symbol]	AIRPORT SECURITY LINE
[Symbol]	RUNWAY PROTECTION ZONE (RPZ)
[Symbol]	BUILDING PROTECTION LINE (BPL)
[Symbol]	UNIMPROVED ROAD
[Symbol]	FENCING
[Symbol]	SECTION CORNER
[Symbol]	STREET SIDE EXPOSURE PAD 10
[Symbol]	CONTROL POINT



ARMSTRONG CONSULTANTS, INC.
 AIRPORT ENGINEERING, PLANNING & ENVIRONMENTAL STUDIES
 881 Reed Avenue
 Grand Junction, CO 81501
 ph 970-242-0101 fax 970-241-7769

WHITERIVER AIRPORT
 WHITERIVER, ARIZONA
 AIRPORT LAYOUT PLANS
 Airport Sponsor:
 WHITE MTN APACHE TRIBE

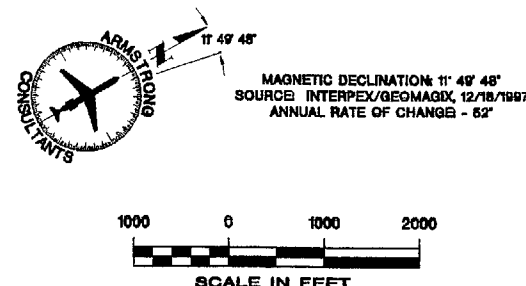
No.	Revision	Date	By

Project No: 965483
 Date: 03/19/98
 File Name: LANDUSE1

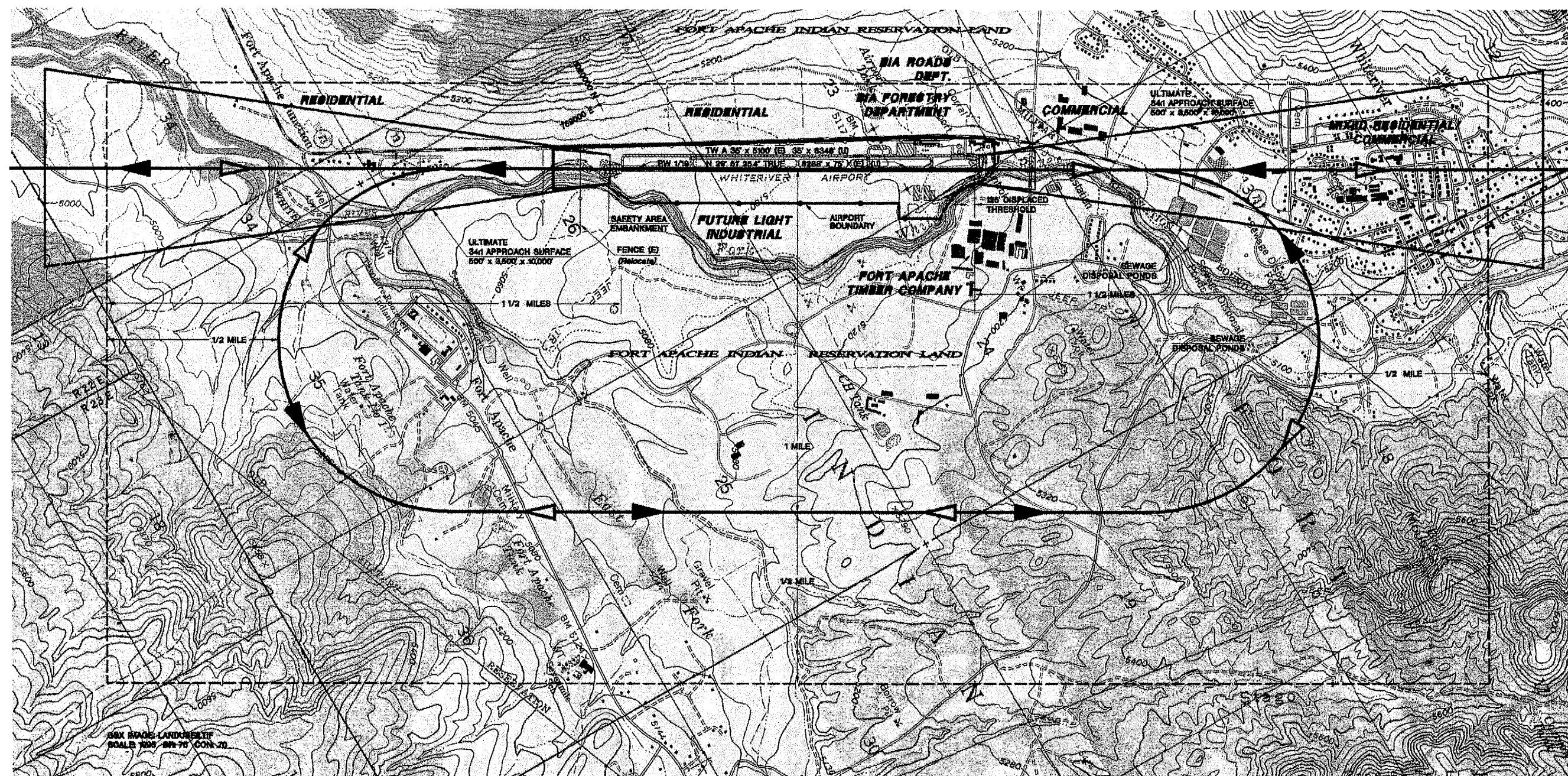
Drawn: KMS/MDM
 Checked: DAC
 Approved: EAA

ON-AIRPORT LAND USE

LEGEND		
EXISTING	ULTIMATE	DESCRIPTION
		RWY 1 FLIGHT PATTERN
		RWY 19 FLIGHT PATTERN
		AIRPORT INFLUENCE AREA
		AIRPORT BOUNDARY LINE
		RUNWAY PROTECTION ZONE (RPZ)
		DEVELOPMENT
		STRUCTURE/FACILITIES
		EARTHWORK
		IMPROVED ROAD
		UNIMPROVED ROAD
		FENCING
		SCHOOL / CHURCH / PUBLIC FACILITY
		SECTION CORNER
		STATE GRID COORDINATE (NAD '83)
		1 MILE
		DISTANCE IN NAUTICAL MILES



LAND USE ORDINANCES
NO LAND USE ORDINANCES IN EFFECT. ALL LAND USES CONTROLLED BY THE WHITE MOUNTAIN APACHE TRIBE. COMPATIBLE LAND USE ASSURANCE LETTER ON FILE.
INCOMPATIBLE LAND USES
SEWAGE DISPOSAL PONDS LOCATED 3,400' FROM RUNWAY 19 AND 3,800' FROM RUNWAY 1. NO REPORTS OF BIRD ATTRACTION TO THE PONDS OR HAZARD TO AIRCRAFT OPERATIONS CREATED BY THE PONDS. NO ACTION REQUIRED AT THIS TIME.
SEE SHEET 6 OF 9 FOR ON-AIRPORT LAND USE DETAILS.



ARMSTRONG CONSULTANTS, INC.
AIRPORT ENGINEERING, PLANNING & ENVIRONMENTAL STUDIES

881 Road Avenue
Grand Junction, CO 81501
ph 970-242-0101 fax 970-241-7669

WHITERIVER AIRPORT
WHITERIVER, ARIZONA
AIRPORT LAYOUT PLANS
Airport Sponsor:
WHITE MTN APACHE TRIBE

No.	Revisions	Date	By

Project No: 965483
Date: 03/19/98
File Name: LANDUSE2

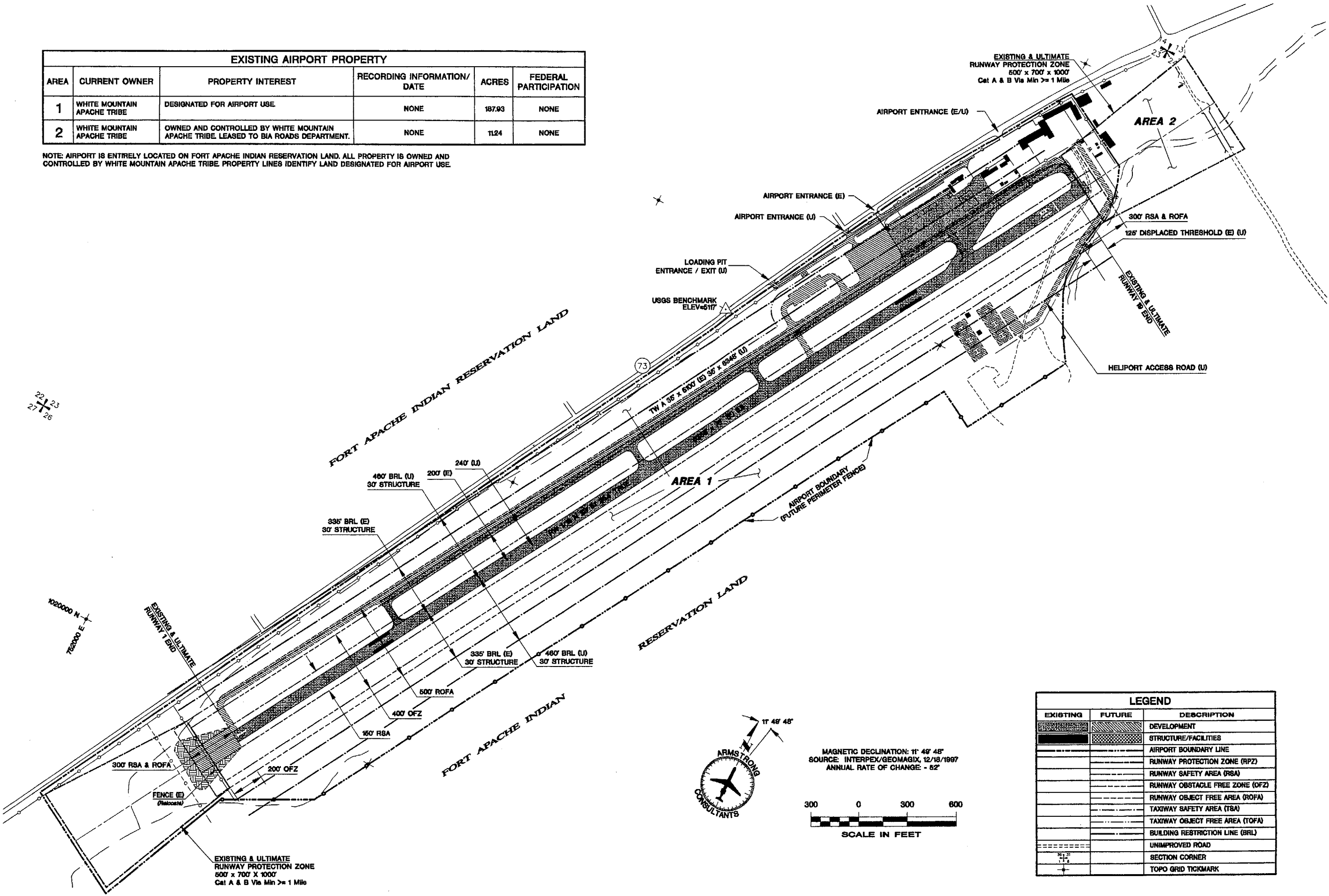
Drawn: MDM
Checked: DAC
Approved: EAA

**OFF-AIRPORT
LAND USE**

Sheet 7 of 9

EXISTING AIRPORT PROPERTY					
AREA	CURRENT OWNER	PROPERTY INTEREST	RECORDING INFORMATION/ DATE	ACRES	FEDERAL PARTICIPATION
1	WHITE MOUNTAIN APACHE TRIBE	DESIGNATED FOR AIRPORT USE.	NONE	187.93	NONE
2	WHITE MOUNTAIN APACHE TRIBE	OWNED AND CONTROLLED BY WHITE MOUNTAIN APACHE TRIBE. LEASED TO BIA ROADS DEPARTMENT.	NONE	1124	NONE

NOTE: AIRPORT IS ENTIRELY LOCATED ON FORT APACHE INDIAN RESERVATION LAND. ALL PROPERTY IS OWNED AND CONTROLLED BY WHITE MOUNTAIN APACHE TRIBE. PROPERTY LINES IDENTIFY LAND DESIGNATED FOR AIRPORT USE.



LEGEND		
EXISTING	FUTURE	DESCRIPTION
		DEVELOPMENT
		STRUCTURE/FACILITIES
		AIRPORT BOUNDARY LINE
		RUNWAY PROTECTION ZONE (RPZ)
		RUNWAY SAFETY AREA (RSA)
		RUNWAY OBSTACLE FREE ZONE (OFZ)
		RUNWAY OBJECT FREE AREA (ROFA)
		TAXIWAY SAFETY AREA (TSA)
		TAXIWAY OBJECT FREE AREA (TOFA)
		BUILDING RESTRICTION LINE (BRL)
		UNIMPROVED ROAD
		SECTION CORNER
		TOPO GRID TICKMARK

ARMSTRONG CONSULTANTS, INC.
 AIRPORT ENGINEERING, PLANNING & ENVIRONMENTAL STUDIES
 861 Road Avenue
 Grand Junction, CO 81501
 PH 970-242-0101 FAX 970-241-7769

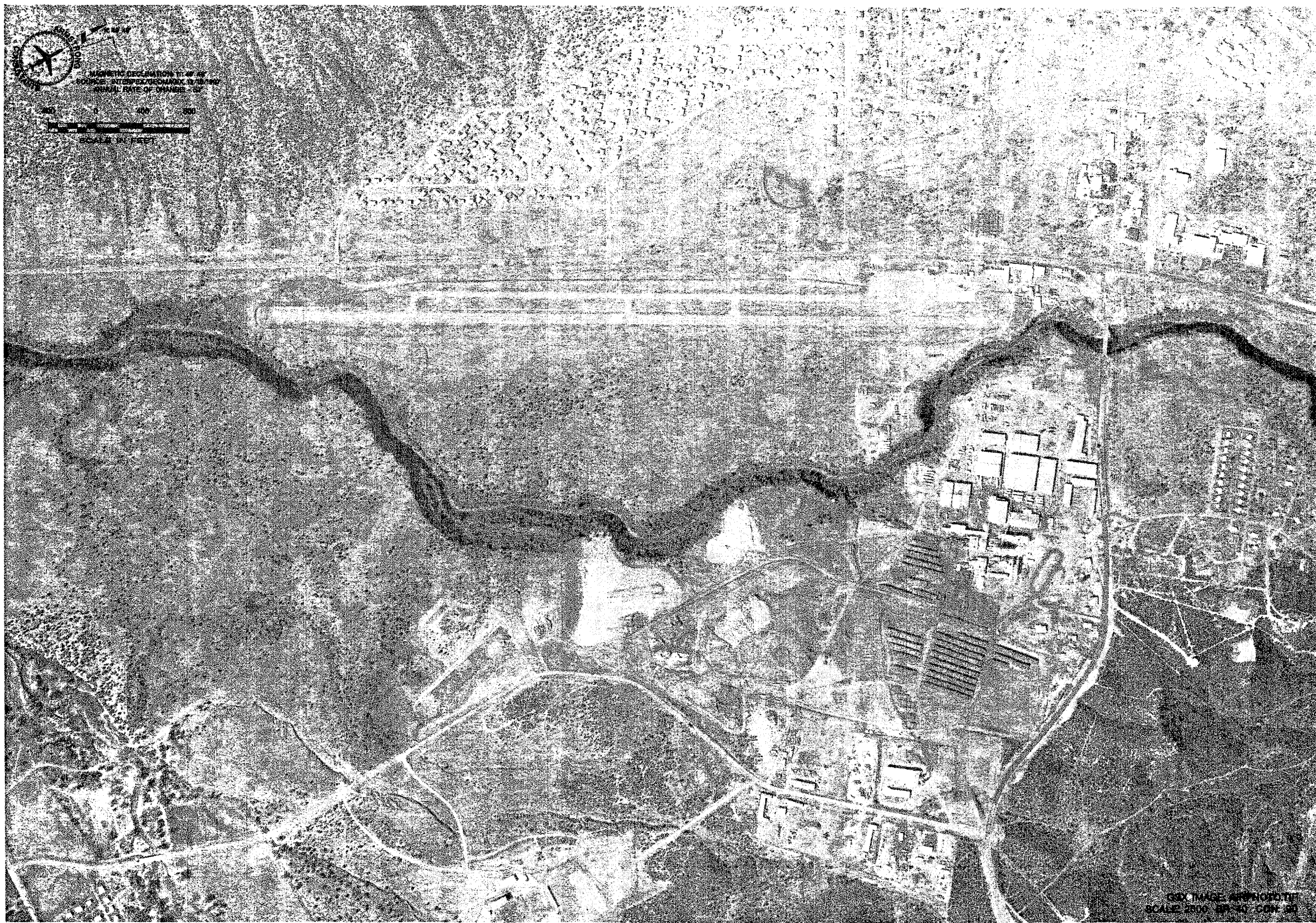
WHITERIVER AIRPORT
 WHITERIVER, ARIZONA
 AIRPORT LAYOUT PLANS
 Airport Sponsor:
 WHITE MTN APACHE TRIBE

No.	Revision	Date	By
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Project No: 965483
 Date: 03/19/98
 File Name: exhibit

Drawn: MDM
 Checked: DAC
 Approved: EAA

EXHIBIT "A"
PROPERTY MAP



MAGNETIC DECLINATION 11.4° W
SOURCE: INTERPOL/GEOMAX 12/15/99
ANNUAL RATE OF CHANGE - 0.5°
SCALE IN FEET
0 100 200 300

GIS IMAGE AIRPHOTO
SCALE 2500 FT TO 1 INCH

No.	Revision	Date	By

The preparation of these documents was required to comply with the provisions of the National Environmental Policy Act of 1969, as amended, and the Federal Aviation Administration's (FAA) Order 1050.3, which requires the FAA to consider the environmental impacts of proposed actions. The FAA does not in any way endorse or guarantee the accuracy or completeness of the information contained herein. The FAA does not in any way assume any liability for any damages or losses resulting from the use of this information. The FAA does not in any way assume any liability for any damages or losses resulting from the use of this information.

Project No: 965483
Date: 03/14/98
File Name: AIRPHOTO

Drawn: MDM
Checked: DAC
Approved: EAA

AERIAL
PHOTOGRAPH

Sheet 9 of 9

WHITERIVER AIRPORT
WHITERIVER, ARIZONA
AIRPORT LAYOUT PLANS
Airport Sponsor:
WHITE MTN APACHE TRIBE

ARMSTRONG
CONSULTANTS, INC.
AIRPORT ENGINEERING, PLANNING & ENVIRONMENTAL STUDIES
881 Reed Avenue
Grand Junction, CO 81501
ph 970-242-0101 fax 970-241-1769